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04/06/00  
JC761 U.S. PTO

jc135 U.S. PTO  
09/545034  
04/06/00

Patent

Attorney's Docket No. P2512\560

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**UTILITY PATENT  
APPLICATION TRANSMITTAL LETTER**

**Box PATENT APPLICATION**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Enclosed for filing is the utility patent application of Eduardo Cue, Shaun Hilton, Glenn D. Epis, Judy D. Halchin, Susan Pfandt and Cathy Ridenour for CUSTOM STORES.

Also enclosed are:

- ☒ Nine sheet(s) of ☐ formal ☒ informal drawing(s);
- ☐ a claim for foreign priority under 35 U.S.C. §§ 119 and/or 365 is ☐ hereby made to ☐ filed in ☐ on ☐;
- ☐ in the declaration;
- ☐ a certified copy of the priority document;
- ☐ a General Authorization for Petitions for Extensions of Time and Payment of Fees;
- ☐ ☐ statement(s) claiming small entity status;
- ☐ an Assignment document;
- ☐ an Information Disclosure Statement; and
- ☐ Other: ☐



**21839**

(02/00)

- ☒ An ☒ executed ☐ unexecuted declaration of the inventor(s)  
☒ also is enclosed ☐ will follow.
- ☐ Please amend the specification by inserting before the first line the sentence --This application claims priority under 35 U.S.C. §§119 and/or 365 to \_ filed in \_ on \_; the entire content of which is hereby incorporated by reference.--
- ☐ A bibliographic data entry sheet is enclosed.

☒ The filing fee has been calculated as follows ☐ and in accordance with the enclosed preliminary amendment:

C L A I M S					
	NO. OF CLAIMS		EXTRA CLAIMS	RATE	FEE
Basic Application Fee					\$690.00 (101)
Total Claims	72	MINUS 20 =	52	x \$18.00 (103)	936.00
Independent Claims	4	MINUS 3 =	1	x \$78.00 (102)	78.00
If multiple dependent claims are presented, add \$260.00 (104)					
Total Application Fee					1,704.00
If verified Statement claiming small entity status is enclosed, subtract 50% of Total Application Fee					
Add Assignment Recording Fee \$40.00 (581) if Assignment document is enclosed					
<b>TOTAL APPLICATION FEE DUE</b>					<b>1,704.00</b>

- ☐ This application is being filed without a filing fee. Issuance of a Notice to File Missing Parts of Application is respectfully requested.
- ☒ A check in the amount of \$ 1,704.00 is enclosed for the fee due.
- ☐ Charge \$ \_\_\_\_\_ to Deposit Account No. 02-4800 for the fee due.
- ☒ The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17 and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800. This paper is submitted in duplicate.

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Respectfully submitted,

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PATENT

Atty Dkt. No. 001580-560

Client Ref. No. P2512

## CUSTOM STORES

### Background of the Invention

The present invention relates to electronic commerce sites, especially electronic commerce sites designed for the use of members of a group.

5 Recently, with the expansion of the Internet, electronic commerce sites have become a powerful new way to buy and sell products. Typically, a consumer goes to a vender's web site, selects a desired product, and purchases it using a credit card. The credit card information is usually encrypted in its transfer across the Internet to provide security. Upon verifying the credit-card information, the  
10 product(s) selected by the consumer are mailed from the vendor's warehouse to the consumer.

Typically, electronic commerce sites are arranged as server systems. A web server receives requests from a client computer. The web server is associated with an application server that runs applications for the web server. Databases at  
15 the server system are used to store the item data including prices for the products on sale.

It is desired to have an electronic commerce site especially tailored for certain groups. For example, in some situations it is useful to have an electronic commerce site for students of a specific university.

One way to set up such a customized site is to have a designer produce a custom web site for each group. This can be quite time consuming if the number of custom sites is large. Additionally, consistency between the main store site and each custom store site becomes a significant problem as the number of custom sites increases. This is especially the case for electronic commerce sites in which prices and available products change constantly. For example, computer vendor web sites have component prices and availabilities that change daily.

It is desired to have an improved way of providing a custom store for an electronic commerce site.

### **Summary of the Present Invention**

One embodiment of the present invention is a system in which an external administrator associated with a group produces configuration data for an electronic commerce custom web site. The configuration data is stored in a database for a server system. The configuration data produced by the administrator and stored in the database is used to create the custom store web site. Since an external administrator produces the configuration data, the internal vendor cost required to produce the custom store web site is minimized.

In a preferred embodiment, the custom store site is a modification of a main electronic commerce store site. The configuration data produced by the external administrator can include bundles of products to be sold, the blocking of certain products from being purchased, and other configurations.

In one embodiment, the server system also includes instantiation software for setting up the custom web page. Typically, the vendor sets up an instance of a custom store which can then be modified by the external administrator with the custom configuration data. The setup information includes discount schedule,

custom store I.D., and the like. In one embodiment, once a custom store is instantiated, the external administrator is supplied with a universal resource locator (URL) for an administrative site that allows for the creation of the configuration data for the custom site.

5           In one embodiment, reconciliation software at the server system is used to examine the product bundles created at a custom site to check for obsolete products and produce electronic mail messages to the external administrator requiring changes or suggesting upgrades for the bundles of products.

Another embodiment of the present invention is a server system adapted to  
10       produce a custom web store page for a vendor. The custom web store page is associated with and for the use of a group other than the vendor. A custom store web page is constructed using data from a database. An external computer operatively connected to the server system is also used. This external computer is associated with the custom store administrator for the group. The external  
15       computer is adapted to provide configuration data to the server system. The server system is adapted to use configuration data to arrange a portion of the custom store web page for the use of group members. The configuration data is stored in the database.

Yet another embodiment of the present invention concerns a computer-  
20       readable media containing a program that executes the following procedure. As a result of web page configuration data sent from an external computer, storing configuration data in a database. The external computer is associated with a custom store administrator for a group other than the vendor. The configuration data is usable to arrange a portion of the vendor's custom store web page for the  
25       use of the group members. The program also executes the step of producing the custom store web page for a group member. The custom store web page being constructed using data from the database. The data including the configuration data.

Still another embodiment of the present invention comprises an apparatus including means for receiving configuration data sent from an external computer and for storing the configuration data in a database. The external computer is associated with a custom store administrator for a group other than the vendor.

5 The configuration data is usable to arrange at least a portion of the vendor's custom store web page for the use of group members. The apparatus also includes means for producing the custom store web page for a group member, the custom store web page being constructed using data from the database which includes configuration data.

#### **Brief Description of the Figures**

10 Fig. 1 is a diagram that illustrates a server system of one embodiment of the present invention.

Figs. 2A and 2B are diagrams that illustrates the operation of the database in the construction of the custom store web site for embodiment of the present  
15 invention.

Fig. 3 is a diagram that illustrates the operation of one embodiment of the present invention for creating and using a custom store web site.

Fig. 4 is a diagram that illustrates a security feature of one embodiment of the present invention.

20 Fig. 5 is a diagram that illustrates one embodiment of the database structure for the custom store of the present invention.

Fig. 6 illustrates a web page for the external administrator to produce the configuration data for creating a custom store web site according to one embodiment of the present invention.

25 Fig. 7 is a diagram of a web page illustrating the front page of a custom store application of one embodiment of the present invention.

Fig. 8 is a diagram of a web page illustrating a recommended system page of one embodiment of the present invention.

**Detailed Description of the Preferred Embodiment**

Fig. 1 illustrates a server system 20 which can be used to produce a custom store of the present invention. The server system in this embodiment includes a web server 22, an application server(s) 24, and a database 26. The application  
5 server 24 includes a number of software applications which aid in the construction of the custom store. A firewall (not shown) between web server 22 and application server 24 limits access from the outside world into the internal computer systems. The web server 22 sends requests to the application server 24 which are used in the construction of web sites. In a preferred embodiment, the  
10 custom stores are dynamically created using data stored in database 26. This allows for discounts, price changes, and external administrator configuration changes to be quickly and easily implemented. The web server 22 preferably interfaces with the application server 24 using a protocol such as the Common Gateway Interface (GCI) protocol. The application server 24 can include a  
15 number of conventional electronic commerce applications 30. In addition to the convention applications, additional applications which aid in the construction of the custom store are also used. For example, a number of custom store applications 32 and 34 are used. Each of these custom store applications can be used for a specific type of custom store. For example, custom store application A 32  
20 produces custom stores for university students, while custom store application B 34 produces custom stores for institutional purchasers. Each custom store application is used for the dynamic production of a number of different custom web sites.

When a group member at computer 36 uses a browser to go to a custom  
25 store, custom store application creates the custom store. The custom store application preferably uses data in database 26 to construct the custom store. Preferably, a store I.D. number is included in the URL sent from the customer computer 36. The custom store application uses this I.D. number to create the correct custom web site.



The instantiation application 38 is used to set up a custom store. Instantiation data, including the store I.D. and the discount tier for the custom store is stored in the database. Additionally, a URL can be sent to the external custom store administrator using the custom store administrator computer 40. The  
5 URL allows the external administrator access to the administration application 42. The administration application 42 allows the administrator to interface with the server system to create the configuration data for the web site data stored in the database 26. As will be described in more detail below, the configuration data can include virtual bundles of products which are recommended to be purchased by the  
10 members of the group, as well as the blocking of certain products from purchase at the custom web site.

The reconciliation application 47 examines the configuration data to see if any changes need to be made to the custom store. For example, if a product in a virtual bundle of products becomes obsolete, notification of the need to change the  
15 bundle is created. The reconciliation application 47 preferably does such a check overnight and then creates notification E-mails to the external administrators who then make changes to the suggested products sold at the custom web sites. The reconciliation application 47 sends the information using the mail server 44.

The database 26 includes the data used to create the custom store. The  
20 template data 46 includes the base prices, basic display information for the main electronic commerce site, discount tiers and the like. The custom store data 48 includes instantiation data 50 as well as configuration or administration data 52 which is controlled by the external administrator of the custom store.

The server system 20 is connected through the Internet 54 to external  
25 computers including customer computer 36 and administrator computer 40. In one embodiment, multiple application servers run the system of the present invention. Alternatively, different software applications can be located on different application servers in one server system.

Internal direct connections (not shown) to the application server 24 can also be used. These direct connections can be used for the operation of the instantiation application 38 as well as to provide internal access to the custom web pages to internal telephone agents.

5            Fig. 2A illustrates an example of one arrangement of the data in the database and the creation of a custom store web site using this database. In this example, custom store application 60 receives a custom web store request including an ID "54" identifying the custom store. The custom store application 60 checks the instantiation data 62 to see which custom store has the ID "54". In 10 this example, the University of X has the ID "54". Next, the University of X custom store administration data 64 is checked to see which products should be displayed on the custom store web page. In this example, an iMac 400 MHZ processor with an iSub speaker system is a suggested product. The custom store application 60 then checks the product grouping list 66 to determine that the iMac 15 400 MHZ processor is in the product grouping "iMac" and the iSub speaker system is in the product grouping "Accessories." The University of X is in the discount tier "C". The discount tier data 68 is checked to determine that iMacs have a two-percent discount and accessories have a three-percent discount for tier C sites. The base price data 70 is checked to determine that the iMac 400 MHZ 20 processor has a base price of \$1,500 and the iSub speaker system has a base price of \$100. Next the custom store application 60 calculates the discount price (\$1,567) to display in the custom web site.

The system shown in Fig. 2A separates the base price data 70 from the custom store data. This allows the discount custom web site prices to be 25 automatically modified when the base price data is changed. The base price data 70 can be used by main store application 72. The reconciliation application 76 checks the changes to the product grouping 66 (or uses some other signal indicative of a change to the product line) against the data in the individual custom store data 64 and 65. For example, if the iSub speaker system is deleted from the

product line, the reconciliation application 76 determines that the University of X has that product in a suggested system and sends an E-mail to the custom store administrator for the University of X to have the custom store administrator modify the suggested products. The operation of the reconciliation application 76 can thus be done automatically without requiring updating by employees.

In one embodiment, the reconciliation application 76 can also suggest upgrades to the virtual bundles. For example, if the bundle was created a while ago, upgrade suggestions can be made to upgrade the suggested products in the bundle even when the products have not been deleted from the product list.

The instantiation application 80 is used to produce the instantiation data 62. This instantiation data can include the custom store I.D., discount tier I.D., and other setup data. The University of X custom store administrator 82 produces the University of X custom store administration data including the suggested products, blocked products, display configuration information, and other configuration data.

Fig. 2A illustrates the data as text strings but in a preferred embodiment the data is stored in the database in an optimized manner that speeds the creation of the custom store web pages.

Fig. 2B illustrates an alternate embodiment of the present invention. In this alternate embodiment, the reconciliation application 83 includes both a product reconciliation module 83a and a price reconciliation module 83b. In this embodiment, the discounted price for the suggested system is stored in the custom store data 64'. Periodically, the price reconciliation module 83b recalculates the discount prices for each suggested system for each of the custom stores. When the user goes to a custom store, the store discount price data can then be quickly displayed to the user. This speeds up the construction of the custom store display. Additionally, a recalculation of the correct discount price can be done when a user purchases a suggested system.

Fig. 3 is a diagram that illustrates the operation of one embodiment of the present invention. In block 100, the vendor sets up a new custom store using the

instantiation application. This causes the database in the server system 101 to be changed. The administration URL is provided to the external administrator in step 102. In step 104, the external administrator uses the URL to go to an administration page created by the server system 101. The administrative page preferably includes a log-in system to authenticate the external administrator. An example of an administration page is discussed below with respect to Figs. 6A and 6B. In step 106, the administrator selects virtual bundles of products to sell at the custom store and blocks purchase of other products. Upon the publishing of the changes, data in the database is modified.

A user goes to a secure page run by the external organization or group in step 108. The user can select and go to the custom store page in step 110. The use of the secure page run by the external organization is described in detail below with respect to Fig. 4. This step adds security to the operation of the present invention. In step 110, the correct custom web page is created. In step 112, the user selects the products or virtual bundles and purchases them from the custom store.

In step 114, the reconciliation application checks the custom stores for obsolete product listings. A notification E-mail sent to the administrator in step 116 and the administrator can modify the selections and virtual bundles to remove obsolete products from the custom store.

Fig. 4 illustrates one example of a security system used with the present invention. In this example, a customer goes to a home page 120 of the University, such as the University of X. The customer types in an I.D. and password provided by the University so that the customer can go to a secure page 122. From the secure student page 122, the customer can go to the custom store page 124. The custom store application checks the referer header field of the HyperText Transfer Protocol (HTTP) header that indicates the URL of the location from which a URL request is sent. Alternately, some portion of the entire URL, such as the host name, could be used. The custom store application

for the custom store 124 checks the referrer field of the HTTP header before allowing a display of the custom store data 124. The URL for the customer store includes a custom store I.D. The custom store application can then check the referer field of the HTTP header for that custom store I.D. In this example, the correct referer field value indicates the secure student's page 122. If the correct referer header is not given, the custom store information is not sent to the user. In this embodiment, only the members of the group are allowed access to the custom store page. This is useful if discounts are provided at the custom store.

An advantage of the system of Fig. 4 is that the vendor server need not keep a list of the I.D.s and passwords for each of the group members. The maintenance and control of the I.D.s and passwords is done by the group itself. This reduces the data requirements at the vendor server, as well as significantly reducing the maintenance requirements for the custom stores. For example, it would be difficult for the vendor if the custom store application was required to maintain a list of I.D.s and passwords for each member of each group, especially considering the level of turnover in groups such as university students. Avoiding such I.D. and password maintenance is a significant advantage.

Looking at Fig. 4, even if the URL for the custom store becomes known, someone at another web page 126 would not be able to go to the custom store because the referer field value is not correct.

Fig. 5 illustrates one example of a data structure for use with the present invention. As shown in Fig. 5, the data for the custom store in block 130 includes a customer number, a database I.D., an "Is Active" field, an "Is High Security" field (the "Is High Security" field indicates whether the custom web store implements the security shown in Fig. 4). Also shown is a name field (for example the University of X), a pricing tier I.D. (for example, tier C), and a referrer URL field used in the scheme of Fig. 4, the store type I.D. which indicates the general type of the store (such as a university custom web page or institutional custom web page, K-12 web page, consumer group web page, or the

like). Each different store type I.D. can be used to set up a different type of custom store.

5 The custom store also includes recommended systems data in block 132. Block 22 includes the "Can Be Configured" field that determines whether a bundle can be modified by the group member or must be chosen in a "take it or leave it" fashion. A description field includes a description of the recommended system that can be input by the administrator. The "Display Order" field provides a number that indicates the order in which the recommended system is displayed on the recommended systems display page. The Main Product I.D. is an indication of  
10 the main product in the bundle. The "Needs Attention" field is set by the reconciliation application when a product in a bundle becomes obsolete.

The recommended system includes a number of recommended system products, each having a block 136. These include the part number, recommended system I.D., "Needs Attention" field, and the like. Also a number of options in  
15 the "Option" field 134 are associated with each of the system products. Note that block 138 for the custom store institution can refer to a number of different custom stores for that institution. Alternately, more than one institution can be associated with one custom store. The custom store block 130 can also include a Family Selection block 140. The custom store block 130 also includes indications which  
20 point to data for different discounts which can be implemented as Pricing Group Discount block 142 and Pricing Tier block 144.

In one embodiment, database structure is set up with pointers which refer to the different data elements. By using pointers, the discounted values of the products need not be stored as a value but merely as pointers to the discount tiers  
25 and to the main price data. Alternately, the discount price data can be stored in the custom store data as shown in Fig. 2B.

Fig. 6 illustrates an example of an external administrator web page which allows for the easy creation of the configuration data for the custom store web pages. In this example, the web page lists a number of different arrangements,

each arrangement including a system description 120 that allows the administrator to type in a description title, display order 122 which allows the administrator to set the order of the display of the recommended systems, a product info URL 124 which allows for use of the customized web page to describes the recommended system, a "can be configured" box 126 indicates whether the system configuration can be modified by the purchaser. Also an "Edit" button 130 allows the administrator to modify the elements in the recommended system. Elements can be added or subtracted from the recommended system. A "Delete" button 132 allows the entire recommended system to be removed. The page shown also includes an "Add New System" button 138 which allows the creation of a new recommended system. The "Add New System" page (not shown) includes a list of different products which can be selected to create the recommended systems (virtual bundles). The system also includes a preview of the recommended system page in which a mock-up of the system page in the custom store is shown to the administrator. Once the configuration is suitable, the administrator publishes the changes to the custom store using the "Publish" option in the web page.

Fig. 7 illustrates an example of a front page for a custom store web site. In one embodiment, the front page generally follows the arrangement of the main store web site. The administrator can block from purchase some of the displayed products. For example, some administrators may want to prevent group members from purchasing iBooks. A recommended systems icon allows the user to go to the recommended systems page.

Fig. 8 shows a recommended systems page. The recommended system page is arranged by the external administrator. Group members can select virtual bundles chosen by the external administrator from the recommended systems page.

Virtual bundles are described in more detail in the patent application "Virtual Bundles," Serial Number \_\_\_\_\_, corresponding to Attorney Docket No. 001580-561, filed on the same day as the present application and incorporated herein by reference.

The foregoing has described the principles, preferred embodiments and modes of operation of the present invention. However, the invention should not be construed as limited to the particular embodiments discussed. Instead, the above described embodiments should be regarded as illustrative rather than restrictive, and it should be appreciated that variations may be made in the embodiments by workers skilled in the art without departing from the scope of the present invention as defined by the following claims.

5



Claims:

1. A system comprising:

a server system adapted to produce a custom-store web page for a vendor, the custom-store web page being associated with and for the use of a group other than the vendor, the custom-store web page being constructed using data from a database; and

a custom-store-administrator computer operably connectable to the server system, the custom-store-administrator computer being associated with a custom-store administrator for the group, wherein the custom-store-administrator computer is adapted to provide configuration data to the server system, the server system being adapted to use the configuration data to arrange at least a portion of the custom-store web page for the use of group members, the configuration data being stored in the database.

2. The system of Claim 1, wherein the server system produces multiple custom web pages for the use of different groups.

3. The system of Claim 1, wherein the configuration data is stored in the database in a different form than the configuration database that is received by the server system from the custom-store-administrator computer.

4. The system of Claim 1, wherein the server system produces an administration web page for the use of an external administrator to modify the custom pages and produce the configuration data.

5. The system of Claim 4, in which the modifications are done without vendor input.

6. The system of Claim 4, in which the modifications to the custom page are done automatically.

7. The system of Claim 1, wherein the configuration data allows the creation of virtual bundles of products for purchase from the custom web page.

8. The system of Claim 1, wherein the configuration data allows the prevention of the selection of certain products by group members from the custom web page.

9. The system of Claim 1, wherein the configuration data affects the product display.

10. The system of Claim 9, wherein the configuration date affects the custom store web page product display order.

11. The system of Claim 12, wherein the custom store is based upon the main store.

12. The system of Claim 11, wherein the custom web page uses data and images from the main web store.

13. The system of Claim 11, wherein the custom store web page has a similar look and feel to the main web store.

14. The system of Claim 1, further comprising instantiation software used to set up the custom web page.

15. The system of Claim 1, wherein the custom store web software at the server system constructs a specific custom store using custom store I.D. information in the URL sent from a group member.

16. The system of Claim 15, wherein the custom store software at the server system checks the referrer URL to determine that the user is coming from the correct secure location.

17. The system of Claim 1, wherein the group comprises an institution.

18. The system of Claim 17, wherein the group comprises a college or university.

19. The system of Claim 1, wherein the production of the custom store web page includes dynamically calculating discounts for products.

20. The system of Claim 1, wherein the database stores the base prices for products as well as associated discounts.

21. The system of Claim 20, wherein the base prices are used for a main store web site.

22. The system of Claim 20, in which discount tiers are associated with each custom store web page.

23. The system of Claim 1, further comprising reconciliation software at the server system which checks the configurations of the custom store web pages for obsolete products.

24. The system of Claim 23, wherein the reconciliation software automatically E-mails notices to the external administrator to notify the external administrator of any obsolete products on the custom store web page.

25. The system of Claim 1, wherein the server system comprises a web server and an application server.

26. A computer-readable medium containing a program which executes the following procedure:

as a result of web-page configuration data sent from an custom-store-administrator computer, storing configuration data in a database, the custom-store-administrator computer being associated with a custom-store administrator for a group other than the vendor, the configuration data being usable to arrange at least a portion of a vendor's custom-store web page for the use of group members; and

producing the custom-store web page for a group member, the custom-store web page being constructed using data from the database, the data including the configuration data .

27. The computer-readable medium of claim 26, wherein the program further includes the setting up of multiple customs to a web page for different groups.

28. The computer-readable medium of claim 26, further comprising the production of an administration web page that allows the external administrator to modify the custom pages.

29. The computer-readable medium of claim 26, wherein the custom store administrator allows the creation of virtual bundles of products for sale using the custom store web page.

30. The computer-readable medium of claim 29, wherein the virtual bundles are shown as a recommended system on a main store web page.

31. The computer-readable medium of claim 26, wherein the configuration data prevents the selection of certain products by group members at the custom web page.

32. The computer-readable medium of claim 26, wherein the configuration data concerns the product display on the custom store web page.

33. The computer-readable medium of claim 26, wherein the custom store web page is based upon a main store web page.

34. The computer-readable medium of claim 26, further comprising using instantiation software at a server system.

35. The computer-readable medium of claim 26, wherein the custom store software constructs the custom store using an I.D. information field in the URL sent by the group member.

36. The computer-readable medium of claim 26, further comprising checking a referrer URL before the construction of the custom store web page.

37. The computer-readable medium of claim 26, wherein the group comprises an institution.

38. The computer-readable medium of claim 26, wherein the construction of the custom store web pages discounts for products is dynamically calculated.

39. The computer-readable medium of claim 26, further comprising reviewing the data in the database to determine whether parts which have become obsolete need to be modified at each of the custom stores.

40. The computer-readable medium of claim 39, further comprising producing an E-mail notification to the administrator, notifying the administrator of changes that need to be made at the custom store web page.

41. A method comprising:

as a result of web-page configuration data sent from an custom-store-administrator computer, storing configuration data in a database, the custom-store-administrator computer being associated with a custom-store administrator for a group other than the vendor, the configuration data being usable to arrange at least a portion of a vendor's custom-store web page for the use of group members; and

producing the custom-store web page for a group member, the custom-store web page being constructed using data from the database, the data including the configuration data.

42. The method of Claim 41, wherein the multiple custom store web pages are created for different groups.

43. The method of Claim 41, wherein the configuration data stored in the database is modified from the configuration data produced by the custom-store-administrator computer.

44. The method of Claim 41, further comprising producing an administration web page to allow the administrator to modify the custom store web pages.

45. The method of Claim 41, wherein the configuration data indicates virtual bundles of products to be sold at the custom store web page.

46. The method of Claim 41, wherein the configuration data prevents the selection of certain products by group members at the custom store web page.

47. The method of Claim 41, wherein the configuration data affects the product display at the custom store web page.

48. The method of Claim 41, wherein the custom store is based upon a main store web page.

49. The method of Claim 41, further comprising setting up the custom store web page with instantiation data.

50. The method of Claim 41, wherein the custom store software constructs the custom store using I.D. information in the URL for the custom store.

51. The method of Claim 50, wherein the system checks the referrer URL to ensure that the custom store web page is being reached by a secure web page maintained by the group.

52. The method of Claim 41, wherein the group comprises an institution.

53. The method of Claim 41, wherein the custom store web pages includes dynamically calculating discounts for products sold at the web page.

54. The method of Claim 41, wherein the configuration data for the custom store web page is checked by reconciliation software to determine whether obsolete products are offered at the custom store web page.

55. The method of Claim 54, wherein E-mail notifications are sent to the administrator if obsolete products are found at the custom store web page by the reconciliation software.

56. An apparatus comprising:

means for receiving configuration data sent from an custom-store-administrator computer and for storing the configuration data in a database, the custom-store-administrator computer being associated with a custom-store administrator for a group other than the vendor, the configuration data being usable to arrange at least a portion of a vendor's custom-store web page for the use of group members; and

means for producing the custom-store web page for a group member, the custom-store web page being constructed using data from the database, the data including the configuration data.

57. The apparatus of Claim 56 wherein multiple custom web stores are created for multiple groups.

58. The apparatus of Claim 56 wherein configuration data is stored in the database in a modified form from the configuration data as received by the apparatus.

59. The apparatus of Claim 56 wherein the apparatus includes means for creation of an administration web page to allow the external administrator to modify custom pages.



60. The apparatus of Claim 56 wherein the configuration data includes data concerning virtual bundles of products which are offered for sale at the custom store web page.

61. The apparatus of Claim 56 wherein the configuration data includes data which prevents the selection of products by group members at the custom store web page.

62. The apparatus of Claim 56 wherein the configuration data includes data which affects the product display at the custom store web page.

63. The apparatus of Claim 56 wherein the custom store web page is based upon a main custom store web page.

64. The apparatus of Claim 56 further comprising instantiation means to produce custom store web page data to set up the custom store web page.

65. The apparatus of Claim 56 wherein custom store software is used to construct the custom store web page using I.D. information in the URL provided by the group member.

66. The apparatus of Claim 65 in which the apparatus checks the referrer URL to determine whether to provide the custom store web page to the user.

67. The apparatus of Claim 56 wherein the group comprises an institution.

68. The apparatus of Claim 56 wherein the custom store web page includes dynamically calculated discounts for products.

69. The apparatus of Claim 56 further comprising reconciliation software to examine the configuration data to determine whether obsolete products are offered at custom store web pages.

70. The apparatus of Claim 69 further comprising means to send E-mail notifications to administrators if obsolete products are offered for sale at the custom store web page.

71. The apparatus of Claim 56 wherein the apparatus comprises a server system.

72. The apparatus of Claim 71 wherein the server system comprises a web server and an application server.

Abstract

A custom store web page uses an external administrator to provide configuration data for a custom store web page. The configuration data can include virtual bundles of products for sale.

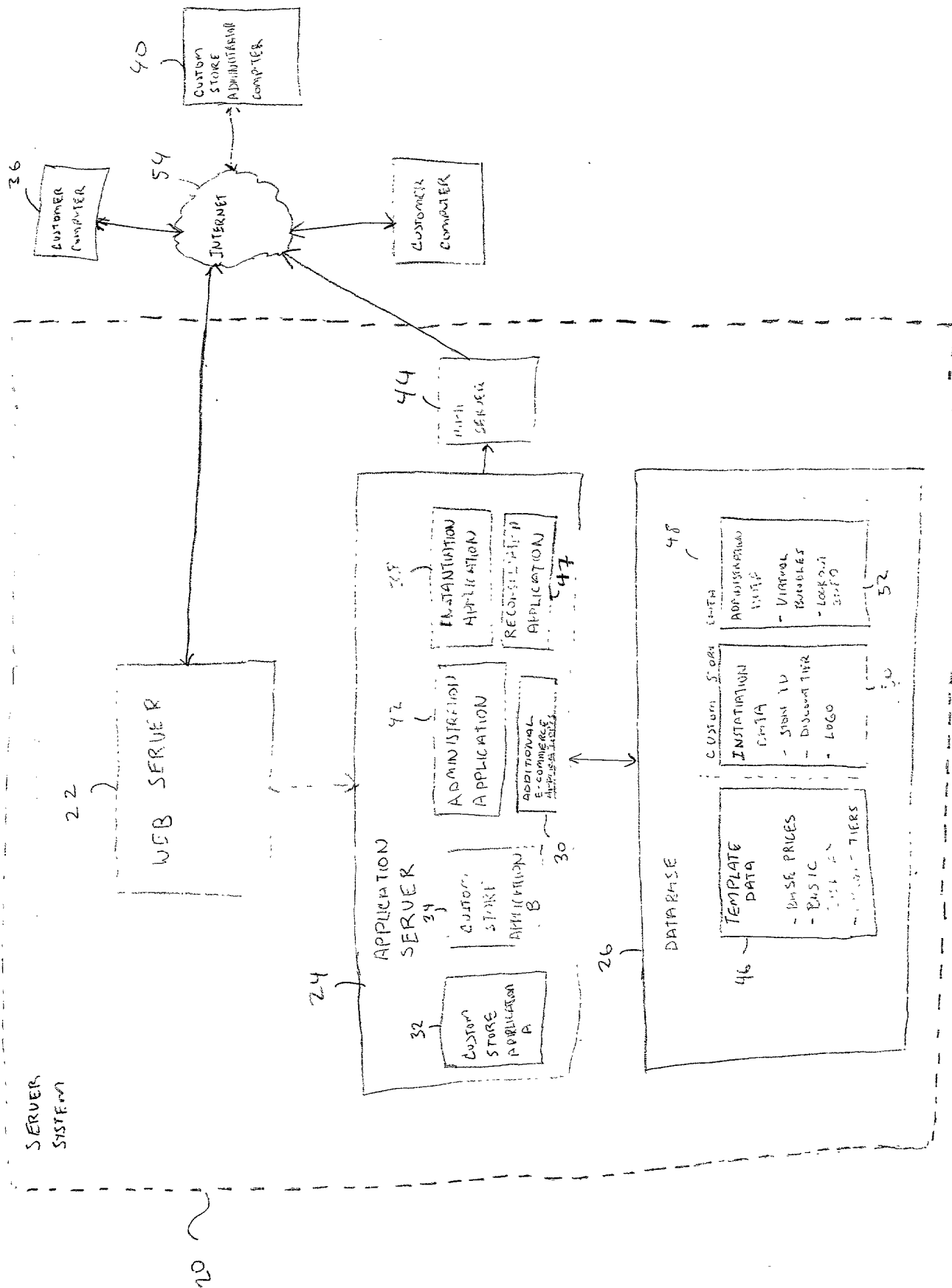


FIGURE 1

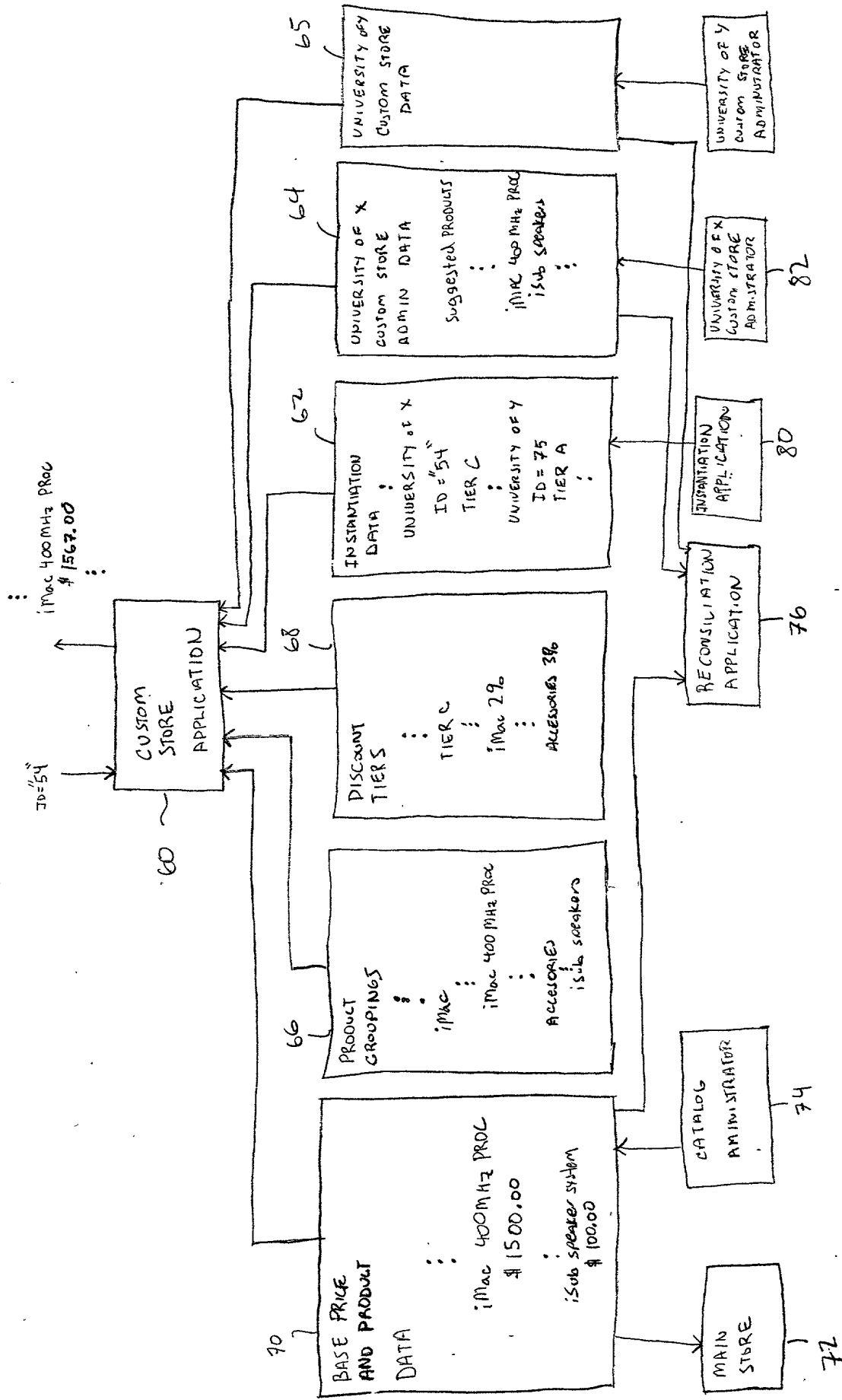


FIGURE 2 A

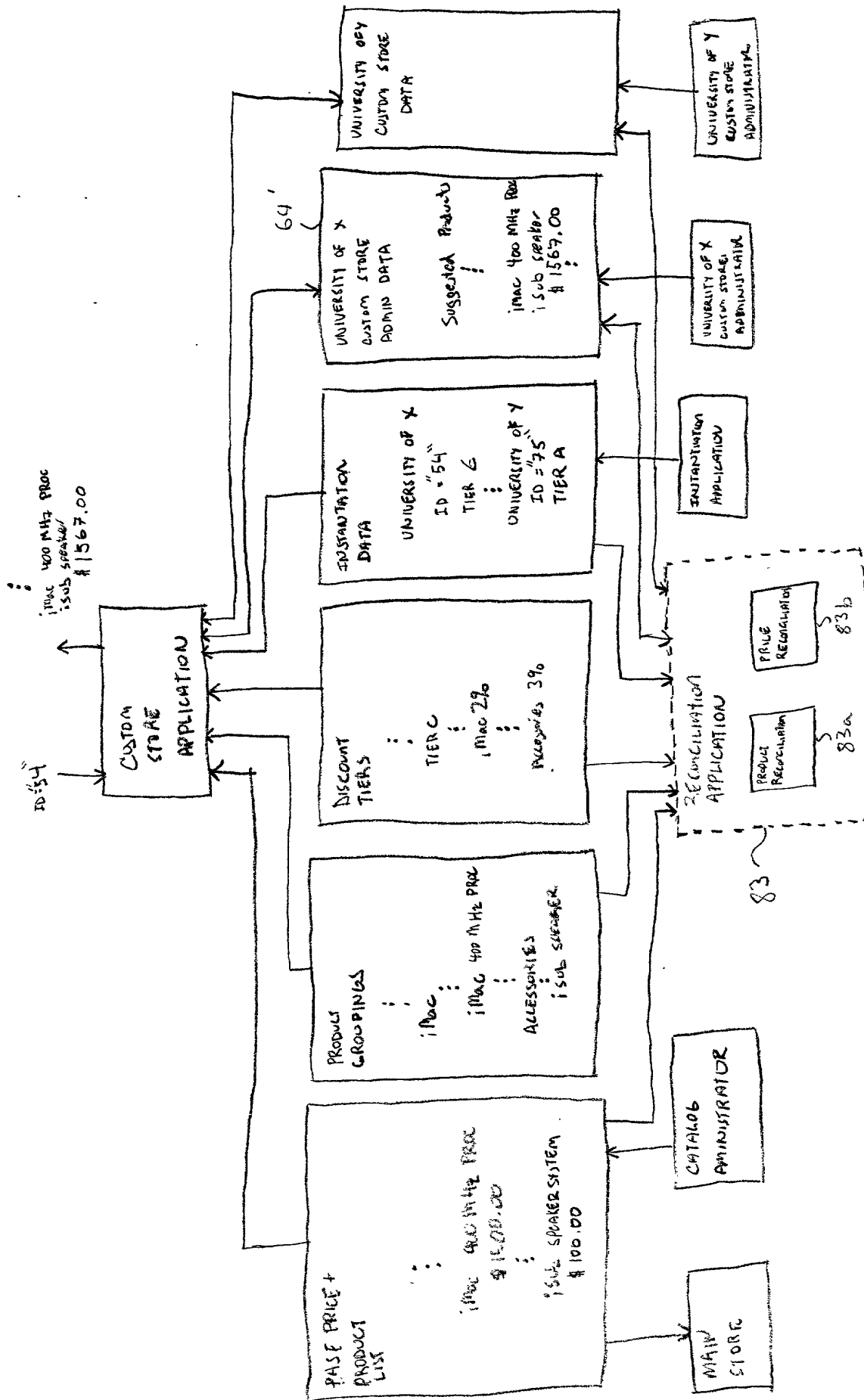


FIGURE 2B

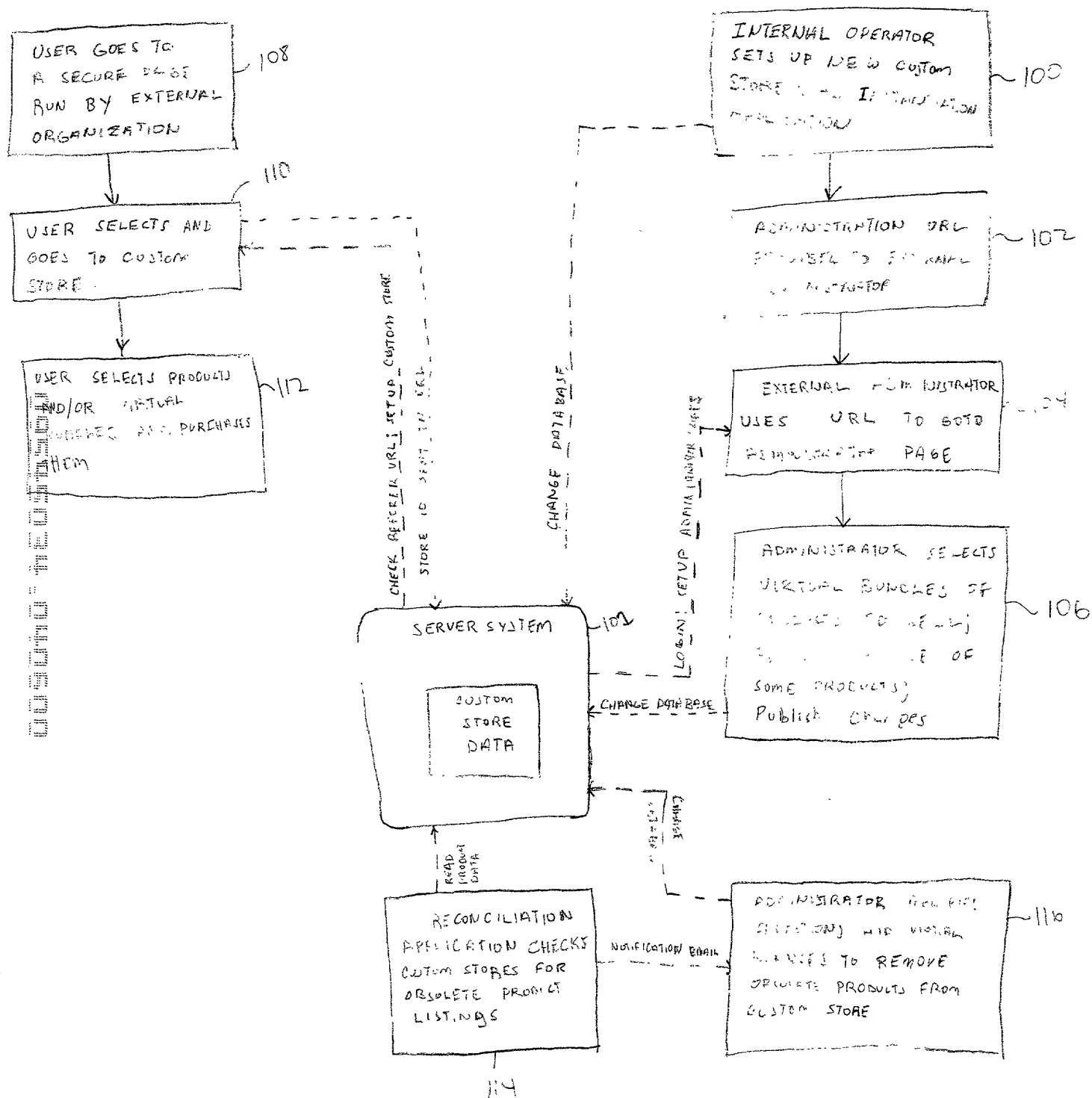


FIGURE 3

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

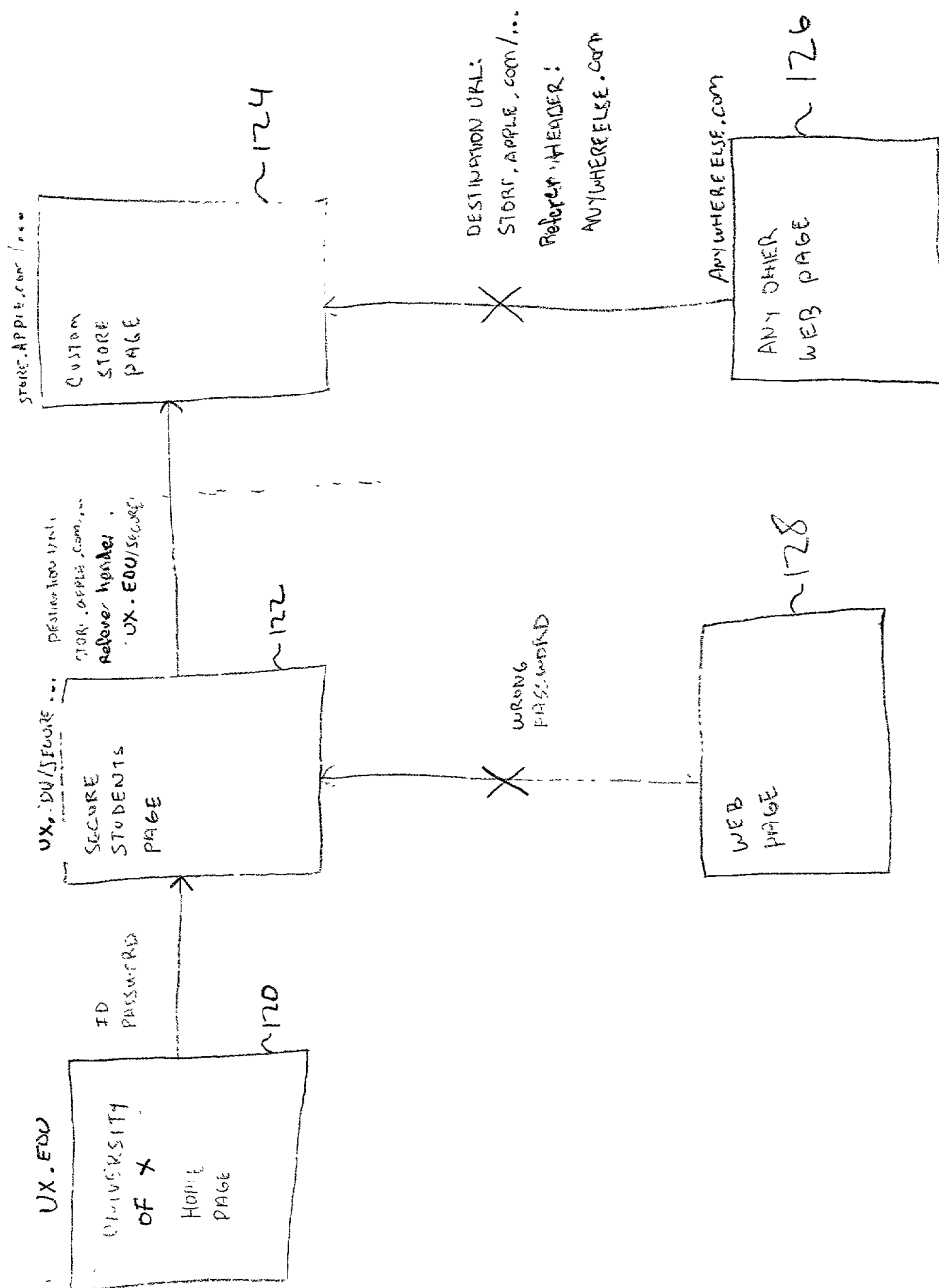


Figure 1



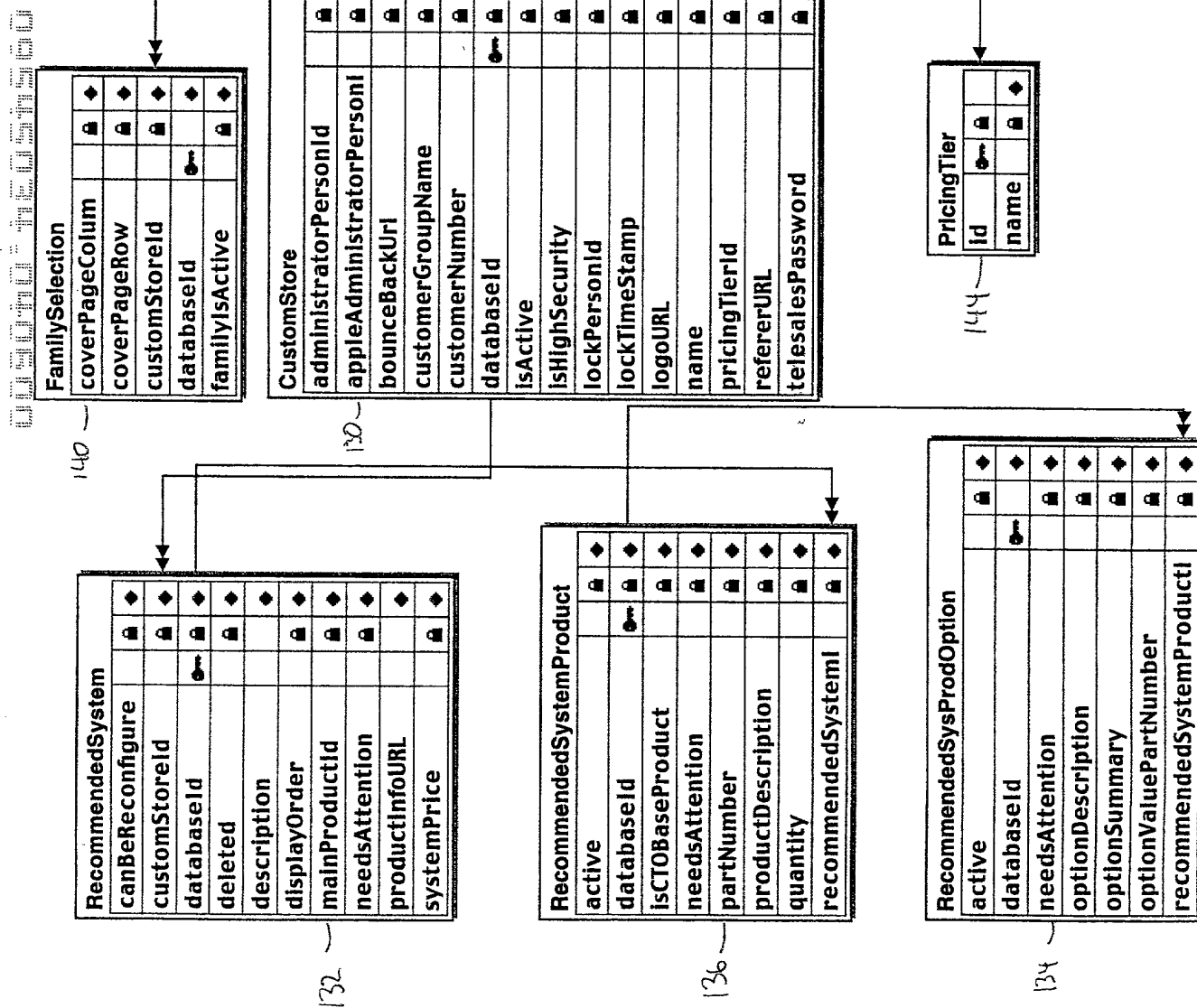


FIGURE 5

Test Version 17

# AppleStore

Customized for Denver Public Schools

[Edit Store Menu](#)
[Add System](#)
[Preview Recommendations](#)
[Publish](#)
[Log Out](#)

130

132

120 ~

124 ~

122 ~

126 ~

Description	Edit	Delete	Description	Edit	Delete	Description	Edit	Delete
Zip drive bundle			Science Lab G4			OS X Server		
Product Info URL:			Product Info URL:			Product Info URL:		
Display Order 1			Display Order 2			Display Order 3		
Configurable: <input checked="" type="checkbox"/>			Configurable: <input checked="" type="checkbox"/>			Configurable: <input checked="" type="checkbox"/>		
Price: \$2,166.00			Price: \$1,792.00			Price: \$5,168.00		
Power Mac G4 450MHz			Power Mac G4			Macintosh Server G4 with Mac OS X Server		
			<ul style="list-style-type: none"><li>• RAGE 128 Pro card - 16MB SDRAM</li><li>• 10/100BASE-T Ethernet built-in</li><li>• 56K internal modem with FAXsf</li><li>• DVD-ROM drive with DVD-Video</li><li>• 10GB Ultra ATA drive</li><li>• USB Keyboard</li><li>• Accessory kit</li><li>• 256MB SDRAM - 1 DIMM</li><li>• 400MHz PowerPC G4 - 1MB L2 cache</li></ul>			<ul style="list-style-type: none"><li>• 512MB SDRAM - 2 DIMMs</li><li>• Accessory kit</li><li>• DVD-ROM drive</li><li>• 36GB Ultra2 SCSI, 2-channel card</li><li>• USB Keyboard</li><li>• Four-port 10/100 Ethernet PCI card</li><li>• RAGE 128 Pro card - 16MB SDRAM</li><li>• 500MHz PowerPC G4 - 1MB L2 cache</li><li>• Ultra SCSI PCI card &amp; cable adapter</li></ul>		

Description	Edit	Delete	Description	Edit	Delete	Description	Edit	Delete
Type-matched G4			iMac SE			G4 Server		
Product Info URL:			Product Info URL:			Product Info URL:		
Display Order 4			Display Order 5			Display Order 6		
Configurable: <input checked="" type="checkbox"/>			Configurable: <input type="checkbox"/>			Configurable: <input checked="" type="checkbox"/>		
Price: \$188.00			Price: \$3,469.00			Price: \$1,836.00		
Imega USB Zip Drive			PowerBook			iBook 366MHz Special Edition		
Imega Zip Disk 6-pack			<ul style="list-style-type: none"><li>• 500MHz PowerPC G3 with 1MB L2 cache</li><li>• 18GB Ultra ATA drive</li><li>• 128MB SDRAM - 1 SO DIMM</li></ul> Extra AC Power Adapter Extra Lithium-Ion Rechargeable Battery			<ul style="list-style-type: none"><li>• 128MB SDRAM - 1 SO DIMM</li><li>• CD-ROM drive</li><li>• 6GB IDE drive</li><li>• Graphite</li></ul>		

Description	Edit	Delete	Description	Edit	Delete	Description	Edit	Delete
Mike's System			Display			Powerbook		
Product Info URL:			Product Info URL:			Product Info URL:		
http://www.apple.com			Display Order 10			Display Order 11		
Configurable:			Configurable:			Configurable:		
Price: \$3,042.00			Price: \$1,836.00			Price: \$1,731.00		
Macintosh Server G4			iBook 366MHz Special Edition			iBook 300MHz		
<ul style="list-style-type: none"><li>• Accessory kit</li><li>• RAGE 128 Pro card - 16MB SDRAM</li><li>• 10/100BASE-T Ethernet built-in</li><li>• DVD-ROM drive with DVD-Video</li><li>• 18GB Ultra2 SCSI, 2-channel card</li><li>• 400MHz PowerPC G4 - 1MB L2 cache</li><li>• Ultra SCSI PCI card &amp; cable adapter</li><li>• 256MB SDRAM - 1 DIMM</li><li>• USB Keyboard</li></ul>			<ul style="list-style-type: none"><li>• Graphite</li><li>• CD-ROM drive</li><li>• 128MB SDRAM - 1 SO DIMM</li><li>• 6GB IDE drive</li></ul>			<ul style="list-style-type: none"><li>• AirPort Card</li><li>• Tangerine</li><li>• CD-ROM drive</li><li>• 6GB IDE drive</li><li>• 128MB SDRAM - 1 SO DIMM</li></ul>		

FIGURE 6

005090-4404500

Netscape: The Apple Store (U.S.)

Back Reload Home Search Netscape Images Print Security Stop

Netsite http://store.apple.com/1-800-800-APPL/W/Subjects/HED woa/162/wo/w43i20r9PJrUHRgcHa/Q 3 1 What's Related

Yahoo! Finance

The Apple Store Your Account View Current Proposal Help

# The Apple Store

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Faster, lighter, thinner.  
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See [Sales and Refund Policies](#) and for more information

FIGURE 7

# AppleStore

Recommendations of Denver Public Schools

## Zip drive bundle

Power Mac G4 450MHz

\$2,166.00

Select

## Science Lab G4

Power Mac G4

- RAGE 128 Pro card - 16MB SDRAM
- 10/100BASE-T Ethernet built-in
- 56K internal modem with FAXstl
- DVD-ROM drive with DVD-Video
- 10GB Ultra ATA drive
- USB Keyboard
- Accessory kit
- 256MB SDRAM - 1 DIMM
- 400MHz PowerPC G4 - 1MB L2 cache

\$1,792.00

Select

## OS X Server

Macintosh Server G4 with Mac OS

X Server

- 512MB SDRAM - 2 DIMMs
- Accessory kit
- DVD-ROM drive
- 36GB Ultra2 SCSI, 2-channel card
- USB Keyboard
- Four-port 10/100 Ethernet PCI card
- RAGE 128 Pro card - 16MB SDRAM
- 500MHz PowerPC G4 - 1MB L2 cache
- Ultra SCSI PCI card & cable adapter

\$5,168.00

Select

## Type-matched G4

Imega USB Zip Drive

Imega Zip Disk 6-pack

\$188.00

Select

## iMac SE

PowerBook

- 500MHz PowerPC G3 with 1MB L2 cache
- 18GB Ultra ATA drive
- 128MB SDRAM - 1 SO DIMM
- Extra AC Power Adapter
- Extra Lithium-ion Rechargeable Battery

\$3,469.00

Select

## G4 Server

iBook 366MHz Special Edition

- 128MB SDRAM - 1 SO DIMM
- CD-ROM drive
- 6GB IDE drive
- Graphite

\$1,836.00

Select

## Mike's System

Macintosh Server G4

- Accessory kit
- RAGE 128 Pro card - 16MB SDRAM
- 10/100BASE-T Ethernet built-in
- DVD-ROM drive with DVD-Video
- 18GB Ultra2 SCSI, 2-channel card
- 400MHz PowerPC G4 - 1MB L2 cache
- Ultra SCSI PCI card & cable adapter
- 256MB SDRAM - 1 DIMM
- USB Keyboard

More Product Info

\$3,042.00

Select

## Display

iBook 366MHz Special Edition

- Graphite
- CD-ROM drive
- 128MB SDRAM - 1 SO DIMM
- 6GB IDE drive

\$1,836.00

Select

## Powerbook

iBook 300MHz

- AirPort Card
- Tangerine
- CD-ROM drive
- 6GB IDE drive
- 128MB SDRAM - 1 SO DIMM

\$1,731.00

Select

FIGURE 8

# COMBINED DECLARATION AND POWER OF ATTORNEY FOR UTILITY PATENT APPLICATION

Attorney's Docket No.

P2512/560

As a below-named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name:

I BELIEVE I AM THE ORIGINAL, FIRST AND SOLE INVENTOR (if only one name is listed below) OR AN ORIGINAL, FIRST AND JOINT INVENTOR (if more than one name is listed below) OF THE SUBJECT MATTER WHICH IS CLAIMED AND FOR WHICH A PATENT IS SOUGHT ON THE INVENTION ENTITLED:

CUSTOM STORES

the specification of which:

(check one)

☒ is attached hereto;

☐ was filed on \_\_\_\_\_ as

Application No. \_\_\_\_\_

and was amended on \_\_\_\_\_;  
(if applicable)

I HAVE REVIEWED AND UNDERSTAND THE CONTENTS OF THE ABOVE-IDENTIFIED SPECIFICATION, INCLUDING THE CLAIMS, AS AMENDED BY ANY AMENDMENT REFERRED TO ABOVE;

I ACKNOWLEDGE THE DUTY TO DISCLOSE TO THE OFFICE ALL INFORMATION KNOWN TO ME TO BE MATERIAL TO PATENTABILITY AS DEFINED IN TITLE 37, CODE OF FEDERAL REGULATIONS, Sec. 1.56 (as amended effective March 16, 1992);

I do not know and do not believe the said invention was ever known or used in the United States of America before my or our invention thereof, or patented or described in any printed publication in any country before my or our invention thereof or more than one year prior to said application; that said invention was not in public use or on sale in the United States of America more than one year prior to said application; that said invention has not been patented or made the subject of an inventor's certificate issued before the date of said application in any country foreign to the United States of America on any application filed by me or my legal representatives or assigns more than twelve months prior to said application;

I hereby claim foreign priority benefits under Title 35, United States Code Sec. 119 and/or Sec. 365 of any foreign application(s) for patent or inventor's certificate as indicated below and have also identified below any foreign application for patent or inventor's certificate on this invention having a filing date before that of the application(s) on which priority is claimed:

COMBINED DECLARATION AND POWER OF ATTORNEY			Attorney's Docket No. P2512/560																																																							
COUNTRY/INTERNATIONAL	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED																																																							
			YES NO																																																							
			YES NO																																																							
<p>I hereby appoint the following attorneys and agent(s) to prosecute said application and to transact all business in the Patent and Trademark Office connected therewith and to file, prosecute and to transact all business in connection with international applications directed to said invention:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">William L. Mathis</td> <td style="width: 10%;">37,337</td> <td style="width: 33%;">James A. LaBarre</td> <td style="width: 10%;">28,632</td> <td style="width: 33%;">William H. Benz</td> <td style="width: 10%;">25,952</td> </tr> <tr> <td>Platon N. Maudros</td> <td>22,124</td> <td>James W. Peterson</td> <td>26,057</td> <td>Peter K. Skiff</td> <td>31,917</td> </tr> <tr> <td>Alan R. Kopecki</td> <td>25,813</td> <td>William C. Rawland</td> <td>30,888</td> <td>Richard J. McGrath</td> <td>29,195</td> </tr> <tr> <td>Samuel C. Miller, III</td> <td>27,360</td> <td>T. Gene Dillahunty</td> <td>25,423</td> <td>Matthew L. Schneider</td> <td>32,814</td> </tr> <tr> <td>Kenneth B. Leffler</td> <td>36,075</td> <td>Patrick C. Keane</td> <td>32,858</td> <td>Gerald F. Swiss</td> <td>30,113</td> </tr> <tr> <td>Allen R. Baum</td> <td>36,086</td> <td>Bruce J. Boggs, Jr.</td> <td>32,344</td> <td>Michael J. Ure</td> <td>33,089</td> </tr> <tr> <td>Steven M. duBois</td> <td>35,023</td> <td>Susan E. Heminger</td> <td>36,440</td> <td>Charles F. Wieland III</td> <td>33,096</td> </tr> <tr> <td>Mark Aaker</td> <td>32,607</td> <td>Richard Liu</td> <td>34,377</td> <td>Mark R. Kresloff</td> <td>442,766</td> </tr> <tr> <td>Helene Plotka Workman</td> <td>35,981</td> <td>Nancy R. Simon</td> <td>36,930</td> <td>Edward W. Scott</td> <td>36,000</td> </tr> </table>					William L. Mathis	37,337	James A. LaBarre	28,632	William H. Benz	25,952	Platon N. Maudros	22,124	James W. Peterson	26,057	Peter K. Skiff	31,917	Alan R. Kopecki	25,813	William C. Rawland	30,888	Richard J. McGrath	29,195	Samuel C. Miller, III	27,360	T. Gene Dillahunty	25,423	Matthew L. Schneider	32,814	Kenneth B. Leffler	36,075	Patrick C. Keane	32,858	Gerald F. Swiss	30,113	Allen R. Baum	36,086	Bruce J. Boggs, Jr.	32,344	Michael J. Ure	33,089	Steven M. duBois	35,023	Susan E. Heminger	36,440	Charles F. Wieland III	33,096	Mark Aaker	32,607	Richard Liu	34,377	Mark R. Kresloff	442,766	Helene Plotka Workman	35,981	Nancy R. Simon	36,930	Edward W. Scott	36,000
William L. Mathis	37,337	James A. LaBarre	28,632	William H. Benz	25,952																																																					
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<p>and: <u>Joseph P. O'Malley, Reg. No. 36,226</u></p>																																																										
<p>Address all correspondence to: James W. Peterson BURNS, DOANE, SWECKER &amp; MATHIS, L.L.P. P.O. Box 1404 Alexandria, Virginia 22313-1404</p>																																																										
<p>Address all telephone calls to: <u>Joseph P. O'Malley</u> at (650) 622-2300.</p>																																																										
<p>I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.</p>																																																										
FULL NAME OF SOLE OR FIRST INVENTOR		SIGNATURE		DATE																																																						
Eduardo Cue		<i>Eduardo Cue</i>		4/5/00																																																						
RESIDENCE			CITIZENSHIP																																																							
1908 Orange Tree Lane, Mountain View, California 94040			United States of America																																																							
POST OFFICE ADDRESS																																																										
1908 Orange Tree Lane, Mountain View, California 94040																																																										
FULL NAME OF SECOND JOINT INVENTOR, IF ANY		SIGNATURE		DATE																																																						
Shaun Hilton		<i>Shaun Hilton</i>		4/5/00																																																						
RESIDENCE			CITIZENSHIP																																																							
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15065 El Camino Senda, Saratoga, California 95070																																																										
FULL NAME OF THIRD JOINT INVENTOR, IF ANY		SIGNATURE		DATE																																																						
Glenn D. Epis		<i>Glenn D. Epis</i>		4/5/00																																																						
RESIDENCE			CITIZENSHIP																																																							
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COMBINED DECLARATION AND POWER OF ATTORNEY		Attorney's Docket No. P2512/560
FULL NAME OF FOURTH JOINT INVENTOR, IF ANY Judy D. Hsieh	SIGNATURE <i>Judy D. Hsieh</i>	DATE 4/5/00
RESIDENCE 20380 Stevens Creek Boulevard, Apt. #239, Cupertino, California 95014	CITIZENSHIP United States of America	
POST OFFICE ADDRESS 20380 Stevens Creek Boulevard, Apt. #239, Cupertino, California 95014		
FULL NAME OF FIFTH JOINT INVENTOR, IF ANY Susan Plank	SIGNATURE <i>Susan Plank</i>	DATE 4/5/00
RESIDENCE 2201 The Alameda #24, Santa Clara, California 95050	CITIZENSHIP United States of America	
POST OFFICE ADDRESS 2201 The Alameda #24, Santa Clara, California 95050		
FULL NAME OF SIXTH JOINT INVENTOR, IF ANY Cathy Ridenour	SIGNATURE <i>Cathy Ridenour</i>	DATE 4-6-00
RESIDENCE 137 D Union Ave. Campbell, CA 95008	CITIZENSHIP United States of America	
POST OFFICE ADDRESS 137 D Union Ave. Campbell, CA 95008		